

WHAT IS CLAIMED IS:

1. A monitoring and diagnostics system for a fleet of rental power generation equipment, the monitoring and diagnostics system comprising:

a plurality of remote processors each operatively engaged with a respective power generation unit, the remote processors each including a plurality of sensors detecting operating data of the respective power generation unit; and

a managing processor receiving the operating data from the plurality of remote processors, the managing processor processing the operating data via an algorithm and determining a health status of the rental power generation fleet, wherein the fleet health status is configurable for presentation via the managing processor on a single display.

2. A monitoring and diagnostics system according to claim 1, wherein the remote processors each comprise a data transmission device transmitting the operating data to the managing processor.

3. A monitoring and diagnostics system according to claim 2, wherein the respective data transmission devices transmit the operating data to the managing processor in real time.

4. A monitoring and diagnostics system according to claim 2, wherein the data transmission device comprises a wired LAN connection via a server.

5. A monitoring and diagnostics system according to claim 2, wherein the data transmission device comprises a wireless LAN connection via a server.

6. A monitoring and diagnostics system according to claim 2, wherein the data transmission device comprises a cellular modem connection via a server.

7. A monitoring and diagnostics system according to claim 1, wherein the managing processor is programmed to run a predictive failure analysis based on the operating data of each of the power generation units.

8. A monitoring and diagnostics system according to claim 1, wherein the operating data comprises at least one of engine speed, coolant temperature, pressure, and hours of use.

9. A method of monitoring and performing diagnostics on a fleet of rental power generation equipment, the method comprising:

(a) detecting operating data of the fleet of power generation equipment, the operating data being detected via a plurality of remote processors each operatively engaged with a respective power generation unit and each including a plurality of sensors;

(b) receiving the operating data from the plurality of remote processors via a managing processor;

(c) the managing processor processing the operating data via an algorithm; and

(d) determining a health status of the rental power generation fleet, wherein the fleet health status is

configurable for presentation via the managing processor on a single display.

10. A method according to claim 9, wherein step (b) is practiced by transmitting, with a data transmission device for each of the remote processors, the operating data to the managing processor.

11. A method according to claim 10, wherein step (b) is further practiced in real time.

12. A method according to claim 9, further comprising the managing processor running a predictive failure analysis based on the operating data of each of the power generation units.

13. A method according to claim 9, wherein the operating data comprises at least one of engine speed, coolant temperature, pressure, and hours of use.

14. A monitoring and diagnostics system for power generation equipment, the monitoring and diagnostics system comprising:

at least one remote processor operatively engaged with a power generation unit, the remote processor including a plurality of sensors detecting operating data of the power generation unit; and

a managing processor receiving the operating data from the remote processor, the managing processor processing the operating data via a predictive failure algorithm to determine a health status of the power generation equipment along with a failure prediction based on the received operating data.